

TEMPEREDNESS OF DISCRETE SUBGROUPS

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ABSTRACT

For a discrete subgroup Γ in a semisimple Lie group G , one is interested in the regular representation $L^2(\Gamma \backslash G)$, in particular its temperedness. In special cases (e.g. rank one or product of those or Anosov subgroups) the temperedness is known to be related to the growth rate of Γ which is measured by the growth indicator function ψ_Γ . Based on the known examples it has been conjectured by Kim, Minsky, and Oh that temperedness is equivalent to $\psi_\Gamma \leq \rho$ (where ρ is the half sum of positive roots) and that this holds for any Borel Anosov subgroup. In this talk, I will give a proof of these two conjectures.

Jointly with Chris Lutsko and Tobias Weich